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SUN MICROSYSTEMS INC  
4120 NETWORK CIRCLE  
MS USCA12-203  
SANTA CLARA, CA 95054

EXAMINER
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POPHAM, JEFFREY D

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/930,873

Applicant(s)

HEILIG, J. ET AL.

Examiner

Jeffrey D. Popham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20010815</u> .  | 6) <input type="checkbox"/> Other: ____                                     |

***Remarks***

Claims 1-53 are pending.

***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- Figure 1: 101, 102, 103, 117, 118, 119, 150, 181, 182, 184, and 186.
- Figure 3: 101, 102, 117, 118, 119, 181, 182, 184, and 186.
- Figure 7: 701, 702, and 715.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

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2. Claims 12, 13, 18, 26, and 44 are objected to under 37 CFR 1.75(a) because of the following informalities:

- Claim 12, lines 1-2 recite the limitation "the connection link". There is insufficient antecedent basis for this limitation in the claims. For purposes of prior art rejected, it has been construed as "the communication link".
- Claim 13, line 5: "to client network" should be "to the client network".
- Claim 18, line 9: "one network" should be "one network server".
- Claim 26, lines 1-2: "the transmission" should be "the data transmission link".
- Claim 44, lines 1-2: "the transmission" should be "the data transmission link".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 9-11, 13, 14, 16, 18, 20, 26-28, 30, 31, 33, 35, 36, 38, 44-46, 48, 49, 51, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crichton et al. (U.S. Patent 6,104,716) in view of Tavs et al. (U.S. Patent 6,073,175).

Regarding Claim 36,

Crichton et al. disclose a computer system comprising:

A processor, inherently in a computer (Column 5, lines 1-8); and

A memory storing a method for enabling a user to access a local area network (LAN) from a client device in a publicly accessible computer network and not directly connected to the LAN (Column 3, lines 40-43), wherein upon execution of the method on the processor the method comprises:

Receiving at a client proxy device a data request from a client data processing device for data accessible from at least one network server in the LAN (Column 3, lines 60-63);

Establishing a data transmission link between the client proxy device and a proxy server connected to the at least one network server in the LAN (Column 5, lines 9-16); and

Authorizing at least one network server to serve the data request of the client data processing device (Column 3, lines 49-52).

Crichton et al. do not disclose establishing a communication link between the client proxy device and the at least one network server, wherein the communication link includes the data transmission link.

Tavs et al., however, disclose establishing a communication link between the client proxy device and the at least one network server, wherein the communication link includes the data transmission link (Column 4, lines 49-54 and Column 5, lines 29-38). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention

to incorporate the information access control system of Tavs et al. into the secure tunneling system of Crichton et al. in order to ensure that the client requesting the data has proper clearance for viewing or using each piece of data (Column 2, lines 35-39).

Regarding Claim 18,

Claim 18 is a method claim that corresponds to system claim 36 and is rejected for the same reasons.

Regarding Claim 35,

Claim 35 is a computer program product claim that corresponds to claim 36 and is rejected for the same reasons.

Regarding Claim 1,

Claim 1 is a system claim that is broader than system claim 36 and is rejected for the same reasons.

Regarding Claim 53,

Claim 53 is a system claim that is broader than system claim 36 and is rejected for the same reasons.

Regarding Claim 38,

Crichton et al. disclose that the at least one network server serving the data request is selected based on information included in the request (Column 3, lines 60-63).

Regarding Claim 20,

Claim 20 is a method claim that corresponds to system claim 38  
and is rejected for the same reasons.

Regarding Claim 2,

Claim 2 is a system claim that is broader than system claim 38 and  
is rejected for the same reasons.

Regarding Claim 44,

Crichton et al. disclose that the data transmission link between the  
proxy server and the client proxy device involves a secure communication  
via a public computer network (Column 5, line 63 to Column 6, line 6).

Regarding Claim 26,

Claim 26 is a method claim that corresponds to system claim 44  
and is rejected for the same reasons.

Regarding Claim 9,

Claim 9 is a system claim that is broader than system claim 44 and  
is rejected for the same reasons.

Regarding Claim 45,

Crichton et al. disclose that the request of the client data  
processing device to access at least one network server is authorized  
prior to establishing the communication link (Column 6, lines 30-33).

Regarding Claim 27,

Claim 27 is a method claim that corresponds to system claim 45  
and is rejected for the same reasons.

Regarding Claim 10,

Claim 10 is a system claim that is broader than system claim 45  
and is rejected for the same reasons.

Regarding Claim 46,

Crichton et al. disclose that the data transmission link between the  
client proxy device and the proxy server is established through a firewall  
restricting access to the LAN (Column 4, lines 51-56).

Regarding Claim 28,

Claim 28 is a method claim that corresponds to system claim 46  
and is rejected for the same reasons.

Regarding Claim 11,

Claim 11 is a system claim that is broader than system claim 46  
and is rejected for the same reasons.

Regarding Claim 48,

Crichton et al. disclose that the client data processing device is part  
of a client network and the data transmission link between the client proxy  
device and the proxy server is further established through a firewall  
restricting access to the client network (Column 4, line 51-56).

Regarding Claim 30,

Claim 30 is a method claim that corresponds to system claim 48  
and is rejected for the same reasons.

Regarding Claim 13,



Claim 13 is a system claim that is broader than system claim 48 and is rejected for the same reasons.

Regarding Claim 49,

Crichton et al. disclose that the proxy server is located inside a firewall restricting access to the LAN (Column 4, lines 51-56).

Regarding Claim 31,

Claim 31 is a method claim that corresponds to system claim 49 and is rejected for the same reasons.

Regarding Claim 14,

Claim 14 is a system claim that is broader than system claim 49 and is rejected for the same reasons.

Regarding Claim 51,

Crichton et al. as modified by Tavs et al. does not disclose registering the client proxy device as a proxy at the client data processing device for executing an application that is proxy enabled.

Tavs et al., however, disclose that the method further comprises registering the client proxy device as a proxy at the client data processing device for executing an application that is proxy enabled (Column 4, lines 29-32). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the information access control system of Tavs et al. into the secure tunneling system of Crichton et al. in

order to ensure that the client requesting the data has proper clearance for viewing or using each piece of data (Column 2, lines 35-39).

Regarding Claim 33,

Claim 33 is a method claim that corresponds to system claim 51 and is rejected for the same reasons.

Regarding Claim 16,

Claim 16 is a system claim that is broader than system claim 51 and is rejected for the same reasons.

4. Claims 3-5, 12, 19, 21, 22, 29, 37, 39, 40, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crichton et al. in view of Tavs et al., further in view of Brownell (U.S. Patent 6,754,831).

Regarding Claim 37,

Crichton et al. as modified by Tavs et al. does not explicitly disclose that the network server is selected based on a port.

Brownell, however, discloses that the at least one network server serving the data request is selected based on a port of the client proxy device receiving the data request (Column 12, lines 32-48). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the firewall tunneling system of Brownell into the secure tunneling system of Crichton et al. as modified by Tavs et al. in

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order to produce a user authenticated channel that can be used for secure communications (Column 13, lines 2-10).

Regarding Claim 19,

Claim 19 is a method claim that corresponds to system claim 37 and is rejected for the same reasons.

Regarding Claim 3,

Claim 3 is a system claim that is broader than system claim 37 and is rejected for the same reasons.

Regarding Claim 39,

Crichton et al. as modified by Tavs et al. does not explicitly disclose that there is a mapping of ports in establishing the communication link.

Brownell, however, discloses that establishing the communication link between the client proxy device and the at least one network server includes a mapping of at least one port of the client proxy device to at least one port of the at least one server (Column 12, line 61 to Column 13, line 10). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the firewall tunneling system of Brownell into the secure tunneling system of Crichton et al. as modified by Tavs et al. in order to produce a user authenticated channel that can be used for secure communications.

Regarding Claim 4,

Claim 4 is a system claim that is broader than system claim 39 and is rejected for the same reasons.

Regarding Claim 21,

Claim 21 is a method claim that corresponds to system claim 39 and is rejected for the same reasons.

Regarding Claim 40,

Crichton et al. as modified by Tavs et al. does not disclose that the mapping includes generating a list of assignments between the at least one port of the client proxy device and the at least one port of the at least one network server.

Brownell, however, discloses that the mapping includes generating a list of assignments between the at least one port of the client proxy device and the at least one port of the at least one network server (Column 12, lines 32-48). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the firewall tunneling system of Brownell into the secure tunneling system of Crichton et al. as modified by Tavs et al. in order to produce a user authenticated channel that can be used for secure communications (Column 13, lines 2-10).

Regarding Claim 22,

Claim 22 is a method claim that corresponds to system claim 40 and is rejected for the same reasons.

Regarding Claim 5,

Claim 5 is a system claim that is broader than system claim 40 and is rejected for the same reasons.

Regarding Claim 47,

Crichton et al. as modified By Tavs et al. does not disclose mapping a port of the client proxy device to a port of the firewall and mapping the port of the firewall to a port of the proxy server.

Brownell, however, discloses further including mapping a port of the client proxy device to a port of the firewall and mapping the port of the firewall to a port of the proxy server (Column 12, line 61 to Column 13, line 10). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the firewall tunneling system of Brownell into the secure tunneling system of Crichton et al. as modified by Tavs et al. in order to produce a user authenticated channel that can be used for secure communications.

Regarding Claim 29,

Claim 29 is a method claim that corresponds to system claim 47 and is rejected for the same reasons.

Regarding Claim 12,

Claim 12 is a system claim that is broader than system claim 47 and is rejected for the same reasons.

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5. Claims 6-8, 15, 23-25, 32, 41-43, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crichton et al. in view of Tavs et al. and Brownell, further in view of Hubbard et al. (Hubbard et al., "Firewalling The Net", BT Technology Journal, BT Laboratories, GB, Volume 15, No. 2, 4/1/1997, pp. 94-106).

Regarding Claim 41,

Crichton et al. as modified by Tavs et al. and Brownell does not disclose retracing a set of mapping rules, wherein the mapping rules include information on establishing the data transmission link.

Hubbard et al., however, disclose further including retrieving a set of mapping rules, wherein the mapping rules include information on establishing the data transmission link (Pages 95-96, Destination IP address section). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the packet filtering scheme of Hubbard et al. into the secure tunneling system of Crichton et al. as modified by Tavs et al. and Brownell in order to obtain a flexible and fast filtering system based on rules (Page 98, Advantages of standard packet filters section).

Regarding Claim 23,

Claim 23 is a method claim that corresponds to system claim 41 and is rejected for the same reasons.

Regarding Claim 6,

Claim 6 is a system claim that is broader than system claim 41 and is rejected for the same reasons.

Regarding Claim 42,

Crichton et al. as modified by Tavs et al. and Brownell does not disclose that the mapping rules further include address information of the at least one network server in the LAN.

Hubbard et al., however, disclose that the mapping rules further include address information of the at least one network server in the LAN (Pages 95-96, Destination IP address section). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the packet filtering scheme of Hubbard et al. into the secure tunneling system of Crichton et al. as modified by Tavs et al. and Brownell in order to obtain a flexible and fast filtering system based on rules (Page 98, Advantages of standard packet filters section).

Regarding Claim 24,

Claim 24 is a method claim that corresponds to system claim 42 and is rejected for the same reasons.

Regarding Claim 7,

Claim 7 is a system claim that is broader than system claim 42 and is rejected for the same reasons.

Regarding Claim 43,

Crichton as modified by Tavs et al., Brownell, and Hubbard et al. disclose the system of claim 41, and further, Brownell discloses mapping at least one port of the client proxy device to at least one port of the proxy server (Column 13, lines 2-6) and mapping the at least one port of the proxy server to at least one port of the at least one network server (Column 12, lines 61-65), and Hubbard et al. disclose that the mapping is executed in accordance with the retrieved mapping rules (Pages 95-96, Destination IP address section).

Regarding Claim 25,

Claim 25 is a method claim that corresponds to system claim 43 and is rejected for the same reasons.

Regarding Claim 8,

Claim 8 is a system claim that is broader than system claim 43 and is rejected for the same reasons.

Regarding Claim 50,

Crichton et al. as modified by Tavs et al. and Brownell does not disclose that the proxy server is configured to allow access only to selected network servers.

Hubbard et al., however, disclose that the proxy server is configured to allow access only to selected network servers (Pages 95-96, Destination IP address section). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate



the packet filtering scheme of Hubbard et al. into the secure tunneling system of Crichton et al. as modified by Tavs et al. and Brownell in order to obtain a flexible and fast filtering system based on rules (Page 98, Advantages of standard packet filters section).

Regarding Claim 32,

Claim 32 is a method claim that corresponds to system claim 50 and is rejected for the same reasons.

Regarding Claim 15,

Claim 15 is a system claim that is broader than system claim 50 and is rejected for the same reasons.

6. Claims 17, 34, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crichton et al. in view of Tavs et al., further in view of Iizuka et al. (U.S. Patent 6,424,980).

Regarding Claim 52,

Crichton et al. as modified by Tavs et al. does not disclose replacing at the client data processing device the name of the at least one network server by the name of the client proxy device and a specific port of executing an application that is not proxy enabled.

Iizuka et al., however, disclose that the method further comprises replacing at the client data processing device the name of the at least one network server by the name of the client proxy device and a specific port

of executing an application that is not proxy enabled (Column 31, lines 38-42). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the retrieval scheme of Iizuka et al. into the secure tunneling system of Crichton et al. as modified by Tavs et al. in order to be able to easily extract information from different locations and coherently display the information so a user can easily view it, without needing to know where each piece of information was retrieved from (Column 4, lines 44-65).

Regarding Claim 34,

Claim 34 is a method claim that corresponds to system claim 52 and is rejected for the same reasons.

Regarding Claim 17,

Claim 17 is a system claim that is broader than system claim 52 and is rejected for the same reasons.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey D. Popham whose telephone number is (571)-272-7215. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)-272-3868. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Andrew Caldwell". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

**ANDREW CALDWELL  
SUPERVISORY PATENT EXAMINER**